

CLAIM SET AS AMENDED:

1. (Currently Amended) A dialyzing system comprising:
a dialyzer having a dialysate outflow line and a dialysate inflow line;
an ultrafiltration unit connected to the dialyzer by the dialysate outflow line and the dialysate inflow line for regulating a rate of an ultrafiltration rate process by regulating an outflow rate of a dialysate from the dialyzer so as to become greater than an inflow rate of the dialysate to the dialyzer; ~~and~~
a-pressure-detecting means arranged in a one of the dialysate flow line lines to detect a pressure of the dialysate; ~~and~~
control means for calculating the pressure of a blood flow line connected to the dialyzer based on the pressure of the dialysate detected by the pressure-detecting means and for calculating a pressure gradient in the blood flow line based on a blood flow rate and a flow resistance of the blood flow line,
~~wherein said system is~~ control means being adapted to determine a the pressure of a blood flow line ~~on the basis~~ based on ~~of a the~~ pressure of the dialysate detected by the pressure-detecting means at ~~the~~ a time of a temporary stop of the ultrafiltration process caused by ~~the temporarily stopping an~~ operation of the ultrafiltration unit,

wherein the control means monitors and displays the pressure of the blood flow line as a pressure of a specified site of the blood flow line.

2. (Currently Amended) The dialyzing system according to claim 1, wherein the control means determines the pressure of the blood flow line ~~is determined on the basis of~~ based on the pressure of the dialysate continuously detected by the pressure-detecting means during the ultrafiltration process and a difference between the pressure of the dialysate at the time of the temporary stop of the ultrafiltration process and ~~the just a newly~~ stabilized dialysate pressure during the ultrafiltration process at ~~the~~ a time of stable ultrafiltration, said stabilized pressure of the dialysate being determined by detection of the pressure of the dialysate after ~~the~~ a lapse of a certain time period required for stabilization of the pressure of the dialysate during the ultrafiltration process from ~~the~~ a time at which the ultrafiltration process is resumed.

3. (Currently Amended) The dialyzing system according to claim 1, wherein the ~~operation control means for determination of~~ determines the pressure of the blood flow line ~~is carried out at every certain predetermined~~ time intervals and/or or at every ~~a~~ time when the ultrafiltration rate is changed.

4. (Currently Amended) The dialyzing system according to claim 1, wherein the control means further including a comprises monitoring means ~~and/or a~~ and display means

which directly or indirectly ~~monitors and/or displays~~ monitor and display the determined pressure of the blood flow line.

5. (Canceled)

6. (Currently Amended) A method for ~~operation of~~ operating a dialyzing system, ~~including comprising~~ the steps of:

temporarily stopping ~~the~~ an ultrafiltration operation of ~~the~~ an ultrafiltration unit to equalize an inflow of a dialysate into a dialyzer and an outflow of the dialysate from the dialyzer;

detecting the pressure of the dialysate at every temporary stop of the ultrafiltration operation; and

~~monitoring a fluctuation of a pressure of a blood flow line~~ calculating the pressure of a blood flow line connected to the dialyzer from the detected pressure of the dialysate;

calculating a pressure gradient in the blood flow line based on a blood flow rate and a flow resistance of the blood flow line; and

monitoring and displaying the pressure of the blood flow line as a pressure of a specified site of the blood flow line.

7. (New) The method for operating a dialyzing system according to claim 6, further comprising the steps of:

determining the pressure of the blood flow line by continuously detecting the pressure of the dialysate during the ultrafiltration operation and a difference between the pressure of the dialysate at the time of a temporary stop of the ultrafiltration operation and a newly stabilized dialysate pressure during the ultrafiltration operation at a time of stable ultrafiltration; and

determining said stabilized pressure of the dialysate by detecting the pressure of the dialysate after a lapse of a certain time period required for stabilizing the pressure of the dialysate during the ultrafiltration operation from a time at which the ultrafiltration operation is resumed.

8. (New) The method of operating a dialyzing system according to claim 6, further comprising the step of:

determining the pressure of the blood flow line at predetermined time intervals or at a time when a rate of an ultrafiltration operation is changed.

9. (New) A dialyzing system comprising:

a dialyzer having a dialysate outflow line and a dialysate inflow line;

an ultrafiltration unit connected to the dialyzer by the dialysate outflow line and the dialysate inflow line for regulating a rate of an ultrafiltration process by regulating an outflow rate of a dialysate from the dialyzer to a rate greater than an inflow rate of the dialysate to the dialyzer;

pressure-detecting means arranged in one of the dialysate flow lines to detect a pressure of the dialysate; and

control means for regulating and controlling said ultrafiltration unit to temporarily stop or resume the ultrafiltration process and for determining a pressure of a blood flow line connected to the dialyzer on the basis of the pressure of the dialysate detected by the pressure-detecting means, said control means comprising:

timer means for alternately generating signals to temporarily stop and to resume the a ultrafiltration process;

calculating means for determining a pressure of a blood flow line based on the pressure of the dialysate detected by said pressure-detecting means at a time of a temporary stop of the ultrafiltration process caused by the temporary ultrafiltration-stop signal from the timer means; and

means for monitoring and displaying the determined pressure of the blood flow line.

10. (New) The dialyzing system according to claim 9, wherein the control means determines the pressure of the blood flow line, based on the pressure of the dialysate continuously detected by said pressure-detecting means during a ultrafiltration process and a difference between the pressure of the dialysate at the time of the temporary stop of the ultrafiltration process and a newly stabilize dialysate pressure during ultrafiltration at a time of stable ultrafiltration process, said stabilized dialysate pressure being determined by

detection of the dialysate pressure after a lapse of a certain time period required for stabilization of the ultrafiltration process from a time at which the water removal is resumed.

11. (New) The dialyzing system according to claim 9, wherein said calculating unit determine the pressure of the blood flow line at predetermined time intervals or at time when the ultrafiltration rate is changed.

12. (New) The dialyzing system according to claim 9, wherein the control means further comprises monitoring means and display means which directly or indirectly monitor and display the determined pressure of the blood flow line.

13. (New) The dialyzing system according to claim 9, wherein the calculating means calculate the pressure of the blood flow line based on the detected pressure of the dialysate and a pressure gradient in the blood flow line, said pressure gradient being determined based on a blood flow rate and a flow resistance of the blood flow line, and wherein the control means monitors and display the calculated pressure of the blood flow line as a pressure of a specified site of a blood flow line.

14. (New) The dialyzing system according to claim 9, wherein said control means allows aid ultrafiltration unit to regulate the outflow rate of the dialysate to a rate equal to the inflow rate of the dialysate to temporarily stop the ultrafiltration when it receives said temporary

stop signal sent from said timer means, but allows said ultrafiltration unit to increase the outflow rate of the dialysate from the dialyzer to a rate greater than the inflow rate of a fresh dialysate to the dialyzer to develop ultrafiltration in the dialyzer when it receives a signal for resumption of ultrafiltration sent from said timer means.

15. (New) The dialyzing system according to claim 9, wherein the control system further includes a ultrafiltration rate-setting device for setting an ultrafiltration rate, and wherein said control means, when received a signal sent from said ultrafiltration rate-setting device, outputs a signal for temporary stop of ultrafiltration before changing the ultrafiltration rate to determine the dialysate pressure just before the stop of ultrafiltration.